Tests for identifying Organic substances

	water	Na_2CO_3 (aq)	Mg or Zn	conc NaOH or HCl	Br_2 (aq)	acidified MnO_4^-	acidified $Cr_2O_7^{2-}$	Universal indicator	litmus paper
alkane	immiscible, alkane floats on top, two different layers are visible	immiscible, alkane floats on top, two different layers are visible			**orange** → colourless after 10 mins if left in light substitution reaction 2 products formed 1 is HBr the other is 1-bromoalkane				
alkene	immiscible, alkene floats on top, two different layers are visible	immiscible, alkene floats on top, two different layers are visible			**orange** → colourless immediately addition reaction immediate reaction 1 product formed which is a dibromoalkane	**purple** → colourless oxidation reaction diol formed			
alcohol (primary & secondary)	soluble (up to 5 carbon atoms in chain length)	soluble (up to 5 carbon atoms in chain length)				**purple** → colourless oxidation reaction carboxylic acid formed	oxidation reaction **orange** → **green** carboxylic acid	**green** as neutral	
carboxylic acid	soluble (up to 5 carbon atoms in chain length)	bubbling salt, water and **carbon dioxide** formed	bubbling as salt, water and **hydrogen** gas formed	neutralisation reaction acids that are insoluble in water will be soluble in **6M NaOH** as acids react to form the sodium salt of the acid				**orange** or **yellow** as acidic	**blue** litmus turns **red**
amine	soluble (up to 5 carbon atoms in chain length)	soluble (up to 5 carbon atoms in chain length)		neutralisation reaction amines that are insoluble in water will be soluble in **6M HCl** as amines react to form ammonium chloride salt				**blue** as basic	**red** litmus turns **blue**